

ABSTRACT OF THE DISCLOSURE

A bubble detector utilizes an ultrasonic transducer to sample bubbles as they pass the transducer. The envelope of the return signal is analyzed to determine the volume of each

5 sampled bubble. If the total volume of bubbles sampled within a certain period of time exceeds a desired maximum volume, the bubble detector may initiate a system shut down.

A bubble detector can be evaluated or calibrated by introducing bubbles into a conduit, detecting the bubbles introduced into the conduit using visual inspection or a bubble detector of known resolution and comparing the results with the examination of a bubble

10 detector under evaluation.

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